JACKSONVILLE HARBOR GRR2

Tentatively Selected Plan (TSP) Milestone Meeting

Duval County, Florida
General Reevaluation Report
and
Supplemental Environmental Impact Statement
May 20, 2013

LEGISLATIVE AUTHORITY

- ***Original study authority:*** ***Resolution from the Committee on Public Works and Transportation, United States House of Representatives, dated February 5, 1992.***
- **Initiate the General Reevaluation Report: Energy and Water Development Appropriations, 2003, United States House of Representatives, House Report 107-681 and the Senate explanatory statement as delineated in the Congressional Record of January 15, 2003.**

The Jacksonville Port Authority (JAXPORT) is the non-federal sponsor.

Purpose

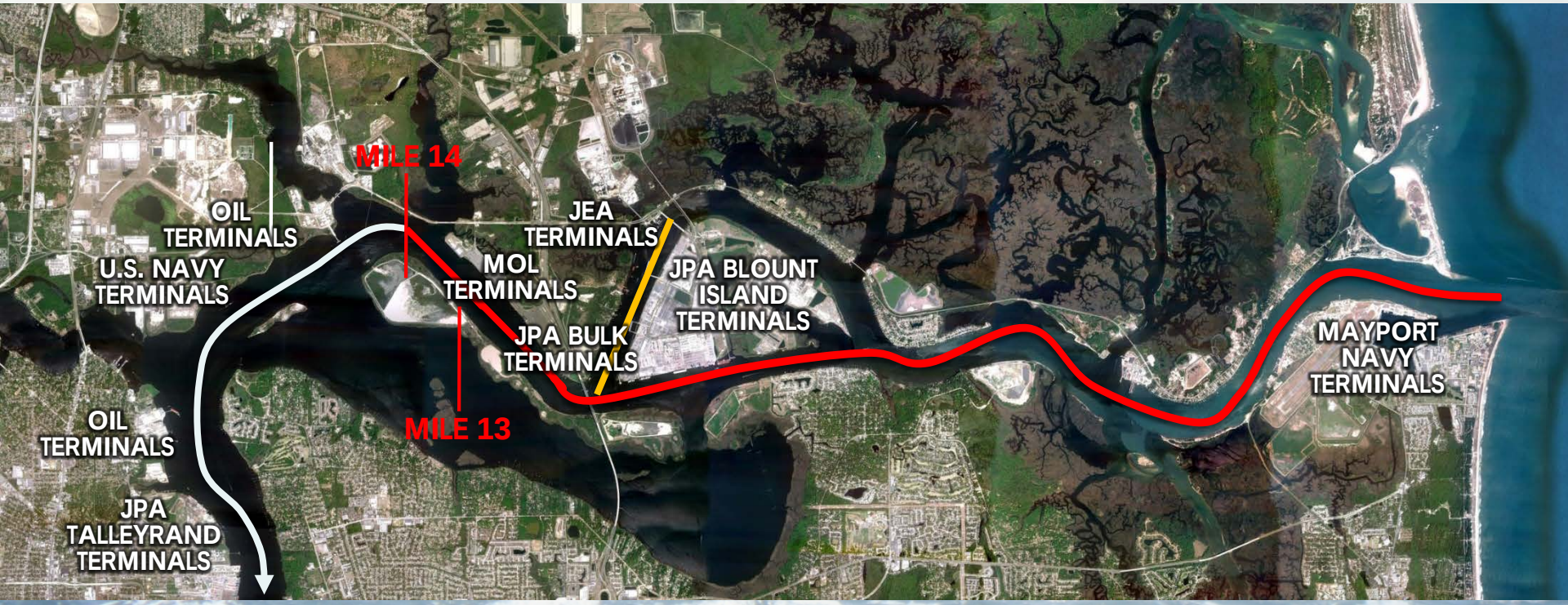
- Reduce navigation transportation costs to and from Jacksonville Harbor
  - Accommodate existing and future vessels
- Reduce navigation constraints facing harbor pilots and their operating practices including limited one-way traffic in certain reaches.
- Develop an alternative that is environmentally acceptable.

Problems/Opportunities

- **Problem: Transportation Cost Inefficiency**
  - **Navigation concerns include two main problems; insufficient Federal channel depths and restrictive channel widths and turning basins**
- **Opportunity: Reduce Transportation Costs**
  - **Opportunity of bringing the forecasted volume of goods into the harbor on fewer larger ships providing transportation cost savings**

Alternatives Considered

Segment 1: Entrance Channel to Mile 14 (Reduced to ~ Mile 13)
Segment 2: Mile 14 to 20 (eliminated)
Segment 3: West Blount Island Channel (Cuts F&G) (eliminated)



Plan Formulation
Feasibility Analysis

Depth	AAEQ Costs*	AAEQ Benefits	AAEQ Net Benefits	BCR
44ft	$25,100,000	$46,000,000	$20,900,000	1.83
45ft (NED)	**$27,400,000**	**$50,600,000**	**$23,200,000**	**1.85**
46ft	$35,000,000	$51,300,000	$16,300,000	1.47
47ft (LPP)	**$37,000,000**	**$52,700,000**	**$15,700,000**	**1.42**

*Costs include IDC and O&M.

NED vs. LPP

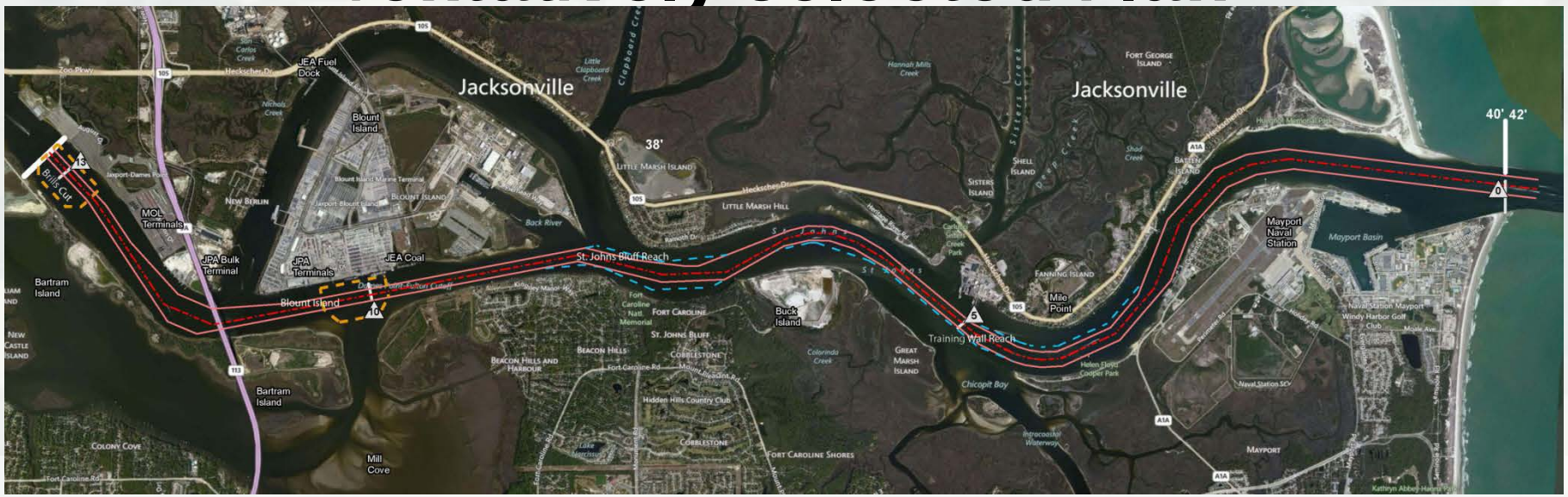
- NED Plan (45 feet)
  - Total Cost: $ 538,000,000
  - Federal Share: $ 349,000,000
  - Non-federal Share $ 189,000,000
  - AAEQ Net Benefits: $ 23,200,000
  - BCR: 1.85
- LPP (47 feet)
  - Total Cost: $ 733,000,000
  - Federal Share: $ 349,000,000
  - Non-federal Share $ 384,000,000
  - AAEQ Net Benefits: $ 15,700,000
  - BCR: 1.42

NED vs. LPP (Incremental Analysis)

Net AAEQ Incremental Benefits: ($7,500,000)

Incremental BCR: 0.22

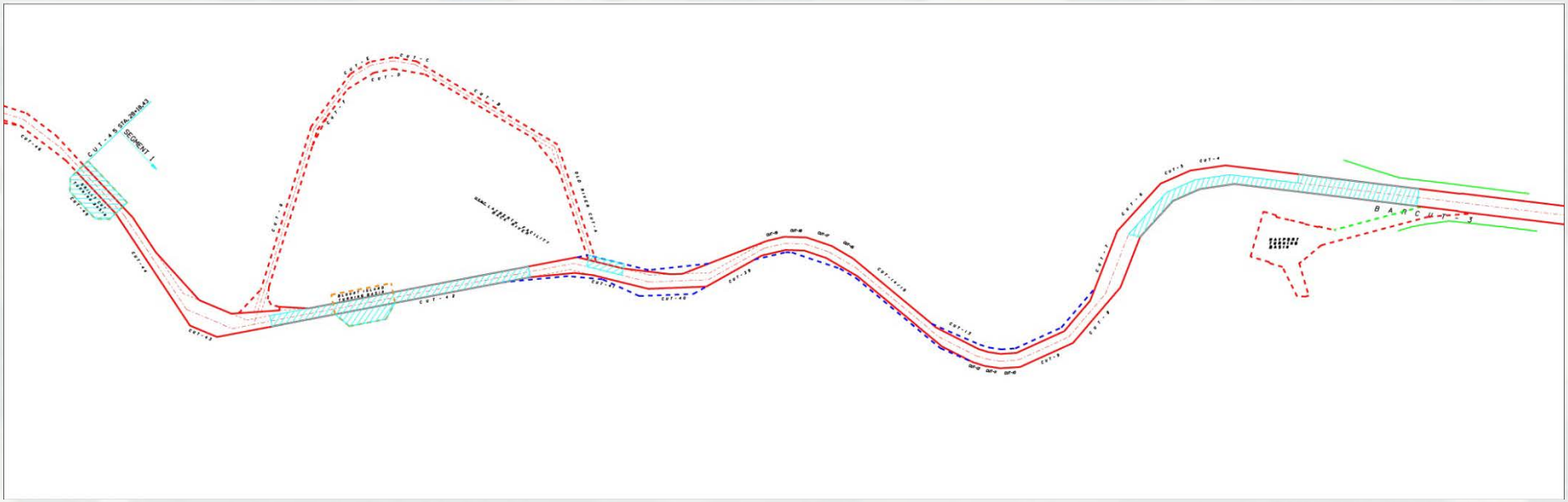
Tentatively Selected Plan



- **Deepening Areas:**
  - Deepen from the Entrance Channel to approximately River Mile 13 from the existing 40 foot depth to 47 feet (LPP), 45 feet (NED)
- **Widening Areas:**
  - Mile Point: increase to the north by 200 feet for Cuts 8, 9, 10, 11, 12, & 13
  - Training Wall Reach: increase to the south 100 feet by Cuts 14/15 & 16 transitioning to 250 feet for Cut 17 and back to 100 feet for Cuts 18 & 19
  - St. Johns Bluff Reach: both sides of the channel by varying amounts of up to 300 feet for Cuts 40 & 41
- **Turning Basin Areas:**
  - Blount Island: ~ 2700' long by 1500' wide located in Cut-42
  - Brills Cut: ~2500' long by 1500' wide located in Cut-45

ENGINEERING

ADVANCE MAINTENANCE ZONES



- **Area 1: Bar Cut-3, Cut-4, Cut-5, Cut-6**
- **Area 2: Cut-41 including widening area**
- **Area 3: Cut-42 full channel**
- **Area 4: (Adjacent to Cut-42) Entire southern portion of Blount Island Turning Basin**
- **Area 5: Brills Cut Turning Basin (Cut-45)**

ENGINEERING

- Sediment Transport and Shoaling Analysis on TSP:
  - Evaluate results and make any necessary adjustments to the advance maintenance areas and predicted future O&M
- Dredging Quantities: ~13.5 million cy for the NED and ~18 million cy of material for the LPP (to ODMDS)
- Geotechnical Core Borings:
  - Complete for study purposes, additional borings will be done during P&S
- Blasting: May be needed depending upon selected contractor's dredging equipment as rock is present at both 45 and 47 feet
- Beneficial use of rock and sand is under investigation.
- Value Engineering and Cost Risk Analysis: Draft Complete
- Ship Simulation: Final Report March 2012

ENGINEERING

NED VS. LPP

- **Construction Materials: ~4.5 million cy additional material with the LPP, could reduce the service life of the ODMDS by ~ 4 years**
  - **ODMDS should still have enough capacity for the duration of the project**
- **Future O&M: Change in project footprint (widening areas) are primary change in future O&M thus little difference between the NED and LPP**
  - **AAEQ O&M costs: ~$1.1 million**
- **Advanced Maintenance: Areas are the same for the LPP and NED**
- **Cost: The existing port facilities are built for a channel depth up to 45 feet thus the 47 foot project would have additional non-federal costs.**

ENVIRONMENTAL COMPLIANCE

ENVIRONMENTAL IMPACTS

- **Threatened and Endangered Species**
  - Northern Right Whale
  - West Indian (Florida) Manatee
  - Sea Turtles
  - Wood Stork, Piping Plover
  - Atlantic & Short-nosed Sturgeon
  - Small-toothed Sawfish
- **Confined Blasting**
  - ESA & MMPA Species
  - Other Wildlife Resources
  - Shoreline Infrastructure
- **Water Quality**
  - Salinity

Salinity Effects

- Negligible difference on St. Johns River mainstem modeling between effects of 45-ft vs. 47-ft; only one assessment needed for impacts.
- Most wetland effects occur in tributaries:
  - Extent of effects in mainstem modeling extended to tributaries for consistency.
  - Established rationale for wetland conversion, would result in transfer of function, not a total loss.
  - Interagency team participated in functional assessment scoring.
- Do not anticipate major changes in impact assessment once tributary modeling is completed (post-Draft).
- SAV effects only along mainstem.
  - Effects expected to be minor, no complete elimination of significant SAV populations.

MITIGATION/IMPACTS ASSESSMENT

Mitigation Plan

- St. Johns River Blueway Conservation Lands
- Timucuan (TIMU) Ecological and Historic Preserve (Preserve) Conservation Lands
- TIMU Management and Analysis Support
- FFWCC Habitat Management Support
- Mitigation Bank Credits
- Nutrient Reduction

Public Involvement

- **Scoping**
  - Scoping letters issued, 2007
  - NOI to prepare a DSEIS Published in FR, 2007
  - Public Meetings:
    - 2009: Public Workshop/Scoping Meeting
    - 2012:
      - Public Meeting on May 22, 2012: Ecological Modeling Assumptions and Methodologies
      - Public Meeting on October 25, 2012: Preliminary Results of the Ecological Modeling
      - Bi-Monthly Teleconference Starting August 2012
    - 2013 :
      - Public Meeting on March 12, 2013: Blasting/Rock Pre-Treatment
      - Public Meeting on June 27, 2013: Draft Report
      - Bi-Monthly Teleconferences Continue

- **Agency Coordination**
  - FSM held February 7, 2008
    - Federal and state agencies attended
  - Cooperating Agency Letters issued, 2011
  - Meetings on Ecological Modeling in March and October 2012
  - Monthly Teleconferences Starting June 2012
  - Endangered Species Act coordination with USFWS and NOAA initiated, 2013
  - Magnuson-Stevens Fishery Conservation and Management Act (EFH) Coordination will be conducted, 2013

ECONOMIC ANALYSIS
BENEFITING CATEGORIES

- **Benefiting Vessel Types/Classes:**
  - **Container = PX1,PX2,PPX1,PPX2**
  - **Bulker = 60-100k DWT**
- **Benefiting Cargo and Trade Routes**
  - **Containers:**
    - **FE-ECUS-PAN**
    - **FE-ECUS-SUEZ**
    - **FE-EU-ECUS-GMEX**
  - **Dry-Bulk:**
    - **Coal**
    - **Dry Bulk Construction Materials**
- **Benefiting Facilities:**
  - **JEA Coal Dock**
  - **Blount Island Marine Terminal**
  - **Dames Point Terminal**

ECONOMIC ANALYSIS: DQC ASSUMPTIONS

- Trade Routes / Growth (Baseline from Global Insight):
  - FE-ECUS-PAN – 3.7%
  - FE-ECUS-SUEZ – 3.8%
  - FE-EU-ECUS-GMEX – 2.8%
  - Coal – Constant at 4M metric tonnes
  - Dry-Bulk - 0.7%
- Sailing Draft Distribution:
  - Based on entrances and clearances used WBC 2007-2010 data
  - PPX1 & PPX2 on routes moving through Panama Canal used West Coast (LA/Long Beach) sailing draft distribution.
- Fleet Transition: Based on MSI fleet forecast
- Underkeel Clearance: 2 to 4 ft depending on vessel type
- Load Factor Analysis: used in modeling effort
- Vessel Loading: historic % of vessel capacity

ECONOMIC ANALYSIS:
DQC ASSUMPTIONS CONT…

- **Container Cargo Composition:**
  - **Parcel Sizes include Empties**
  - **TEU Weights based on Global Insight Forecast**
    - **(Forecasted tonnes / forecasted TEUS) + Weight of Container**
    - **Similar to existing condition with Empties included.**
  - **Laden TEU Weights (inbound -vs.- outbound)– Weighted Average**
  - **Increased or decreased departure draft – based on % imports vs. % exports**
- **All HarborSym Files provided**
- **Barges, Cruise Ships etc. – Used for congestion.**

ECONOMIC ANALYSIS

DQC UPDATES

- **Parameters**
  - ▸ Discount Rate
  - ▸ Base year 2020
  - ▸ # Lifecycles – 100
  - ▸ # Years of Growth – 30
- **45’ BCR ~ 1.85**
  - ▸ Min BCR -1.68
  - ▸ Max BCR – 1.98
- **47’ BCR ~ 1.42**
  - ▸ Min BCR – 1.30
  - ▸ Max BCR – 1.51

BCR	44	45	46	47
1.30				1%
1.36			3%	19%
1.42			22%	44%
1.49			47%	31%
1.55			28%	5%
1.61	1%			
1.67	1%			
1.73	8%	3%		
1.79	25%	25%		
1.86	38%	33%		
1.92	21%	33%		
1.98	6%	6%		

PENDING RISK ITEMS

Risk Register Items:

- **Pending Analysis (Modeling and Certifications): Not included in initial Draft Report (May) however to be included in the Final Report . The risk is that one or more of these will have unanticipated results, which may require additional analysis and/or additional time for public review.**
  - **Shoaling ADH analysis: June 2013**
  - **USGS Groundwater Report: June 2013**
  - **Storm Surge Modeling: July 2013**
  - **Tributary/Salt Marsh Modeling: July 2013**
  - **Ship Wake Analysis: August 2013**
- **In-Kind vs. Out-Of-Kind Mitigation: Gaining concurrence from the agencies for out-of-kind (near-kind) if in-kind is not possible. Issue Ongoing.**
- **Impacts to T&E species, EFH due to deepening – Ongoing issue.**
- **WQ Cert and CZM during feasibility phase: Ongoing issue**

PROJECT MANAGEMENT

Project Implementation

- **Key Dates:**
  - **May 2013: Policy HQ Review, Legal Review, Agency Technical Review, IEPR, and Public Coordination of Draft Report**
  - **July 2013: Public and Agency Comments Due**
  - **October 2013: Division Engineer Transmittal Letter, Initiate Design**
  - **December 2013: Civil Works Review Board**
  - **April 2014: Chief of Engineer's Report**
  - **2015: Begin Construction - Pending Authorization and Appropriations**
- **Construction Duration:**
  - **Approximately 5 Years (NED) and 6 Years (LPP)**

NEXT MILESTONE

Coordination of Draft Report

Reviews: Public, Policy, ATR, IEPR, Legal

MAY 2013

Thank you.

Additional Information
Cost Sharing Breakdown NED

	Total Cost	Federal Share	Non-federal Share
General Navigation Features	**20-45 ft.**	**75%**	**25%**
Mobilization	**$7,375,000**	**$5,531,000**	**$1,844,000**
Dredging and Disposal	**$440,260,000**	**$330,195,000**	**$110,065,000**
Associated General Items[1]	**$3,451,000**	**$2,588,000**	**$863,000**
Environmental Mitigation	**$74,447,000**	**$55,835,000**	**$18,612,000**
Conservation Land Purchase	*$5,538,000*	*$4,153,000*	*$1,384,000*
SAV Impacts - Nutrient Reduction Projects	*$21,197,000*	*$15,898,000*	*$5,299,000*
Fish and Wildlife Impacts-Ecosystem Restoration Projects	*$18,433,000*	*$13,825,000*	*$4,608,000*
Monitoring	*$29,279,000*	*$21,959,000*	*$7,320,000*
Planning, Engineering, and Design	**$5,216,000**	**$3,912,000**	**$1,304,000**
Construction Management (S&I)	**$4,753,000**	**$3,565,000**	**$1,188,000**
NED Subtotal Construction of GNF	**$535,503,000**	**$401,627,000**	**$133,876,000**
Non-federal Construction Costs	**$1,229,000**	**-**	**$1,229,000**
Lands and Damages	**$125,000**	**$94,000**	**$31,000**
NED Total Project First Costs	**$536,856,000**	**$401,721,000**	**$135,136,000**
Aids to Navigation[2]	**$1,132,000**	**$1,132,000**	**$0**
Credit for non-Federal LERR[3]	**-**	**$0**	**($31,000)**
10% GNF Non-Federal[4]	**-**	**($53,550,000)**	**$53,550,000**
Total NED Cost Allocation[5]	**$537,988,000**	**$349,302,000**	**$188,655,000**

Additional Information
Cost Sharing Breakdown LPP

	Total Cost	Federal Share	Non-federal Share
General Navigation Features	**20-47 ft.**	**75% of NED[5]**	**25% of NED + Addtl**
Mobilization	**$10,461,000**	**$5,531,000**	**$4,930,000**
Dredging and Disposal	**$528,377,000**	**$330,195,000**	**$198,182,000**
Associated General Items[1]	**$3,317,000**	**$2,588,000**	**$729,000**
Environmental Mitigation	**$80,082,000**	**$55,835,000**	**$24,247,000**
Conservation Land Purchase	*$5,957,000*	*$4,153,000*	*$1,804,000*
SAV Impacts - Nutrient Reduction Projects	*$22,801,000*	*$15,898,000*	*$6,904,000*
Fish and Wildlife Impacts-Ecosystem Restoration Projects	*$19,829,000*	*$13,825,000*	*$6,005,000*
Monitoring	*$31,495,000*	*$21,959,000*	*$9,536,000*
Planning, Engineering, and Design	**$7,098,000**	**$3,912,000**	**$3,187,000**
Construction Management (S&I)	**$6,469,000**	**$3,565,000**	**$2,904,000**
NED Subtotal Construction of GNF	**$635,805,000**	**$401,627,000**	**$234,178,000**
Non-federal Construction Costs	**$95,766,000**	**-**	**$95,766,000**
Lands and Damages	**$125,000**	**$94,000**	**$31,000**
NED Total Project First Costs	**$731,697,000**	**$401,721,000**	**$329,976,000**
Aids to Navigation[2]	**$1,132,000**	**$1,132,000**	**$0**
Credit for non-Federal LERR[3]	**-**	**$0**	**($31,000)**
10% GNF Non-Federal[4]	**-**	**($53,550,000)**	**$53,550,000**
Total NED Cost Allocation[6]	**$732,828,000**	**$349,302,000**	**$383,495,000**

Additional Information: Schedule

Tasks	Duration	Start	End
ATR, SAD, HQ Review Period	21	31-May-13	28-Jun-13
Public Meeting	0	27-Jun-13	27-Jun-13
Public Review Period (NEPA) and IEPR	43	31-May-13	31-Jul-13
Address Public, ATR, IEPR, SAD/HQ Comments and Revise Report	45	1-Jul-13	3-Sep-13
Prepare & Submit Final Report to DE Commander	5	4-Sep-13	10-Sep-13
Final Report Submitted to DE Commander (MS)	0	10-Sep-13	10-Sep-13
Division Engineer Transmittal Letter (MS)	10	11-Sep-13	24-Sep-13
HQ Final Review/Chief's Report Development	22	25-Sep-13	25-Oct-13
GRR Report Approval (MS)	0	25-Oct-13	25-Oct-13
OWPR Review of Final Document/Approval for CWRB	15	28-Oct-13	18-Nov-13
Civil Works Review Board (MS)	0	18-Nov-13	18-Nov-13
HQ Transmits Coordination Package for State/Agency Review & Final NEPA	10	19-Nov-13	3-Dec-13
SAJ Transmits Letters/Reports to Agencies and Files SEIS	10	4-Dec-13	17-Dec-13
Complete State/Agency and Final NEPA Review	35	18-Dec-13	7-Feb-14
HQ Final Policy Compliance Review	35	18-Dec-13	7-Feb-14
SAJ Provides Responses to NEPA Comment and State/Agency Comments	15	10-Feb-14	3-Mar-14
MSC officially responds to NEPA Comments/HQ responds to State/Agency Comments	15	4-Mar-14	24-Mar-14
OWPR Completes Documentation of Review Findings/Finalize Chief's Report	10	25-Mar-14	7-Apr-14
RIT Process Chief's Report and Obtains Signatures	10	8-Apr-14	21-Apr-14
Chief's Report (MS)	0	21-Apr-14	21-Apr-14